

Abstract

It is an object of the invention to provide a simple and small slide-falling preventing apparatus capable of reliably preventing a slide from falling within a short time in an arbitrary slide position without slight falling of the slide, and capable of being additionally mounted to an existing press machine with small modification within a short time while securing excellent maintainability. The slide-falling preventing apparatus comprises an external tooth gear of a rotating and driving system of a slide, an external tooth gear mounted on a rotation shaft of a rotating and driving system of a slide or an external tooth gear which meshes with a tooth gear of a rotating and driving system of a slide. The slide-falling preventing apparatus comprises a meshing member capable of meshing with at least one of teeth of the external tooth gear, the meshing member being provided such that the meshing member can engage with and disengage from the tooth of the external tooth gear from its radial direction, and meshing member inserting means for advancing and retreating the meshing member in the radial direction of the external tooth gear. The slide-falling preventing apparatus also comprises a meshing member moving means which can move the meshing member in a substantially tangent direction of the external tooth gear and can position the meshing member.